

What is claimed is:

1. A method of cleaning an contaminated surface on a head suspension for a rigid disk drive, the head suspension including a load beam with a mounting region at a proximal end, a rigid region at a distal end and a spring region between the mounting region and the rigid region, the method comprising the steps of

patterning a laser beam such that a single pulse extends across the entire contaminated surface; and

applying one or more pulses of the laser energy sufficient to laser 10 clean the contaminated surface.

2. The method of claim 1 wherein the entire contaminated surface is melted simultaneously.

3. The method of claim 1 wherein the contaminated surface comprises stainless steel.

4. The method of claim 1 comprising the further step of determining a fluence such that a single pulse just starts to melt tops of surface irregularities on the contaminated surface.

5. The method of claim 1 wherein the step of patterning the laser beam comprises the step of interposing a mask between a source of the laser beam and the contaminated surface.

6. The method of claim 5 wherein the mask comprises an aperture adapted to shape the laser beam to a shape generally corresponding to a shape of the contaminated surface.

7. The method of claim 5 comprising directing the laser beam through a lens located between the mask and the contaminated surface.

8. The method of claim 5 wherein the step of patterning the laser beam comprises the step of interposing at least one lens between the mask and the contaminated surface.

9. The method of claim 1 wherein the contaminated surface comprises a lift tab.

10. The method of claim 1 wherein the contaminated surface comprises a load point dimple.

5 11. A method of cleaning an contaminated surface of a head suspension, comprising the steps of simultaneously applying laser energy to a region that extends across at least the contaminated surface wherein the entire contaminated surface is cleaned simultaneously; determining a fluence such that a single pulse cleans the contaminated surface; and interposing a mask between a source of laser  
10 energy and the contaminated surface.

12. The method of claim 11 wherein the mask comprises an aperture adapted to shape the laser energy to a shape generally corresponding to a shape of the contaminated surface.

15 13. The method of claim 11 comprising directing the laser energy through a lens located between the mask and the contaminated surface.

14. The method of claim 11 wherein the step of patterning the laser energy comprises the step of interposing at least one lens between the mask and the contaminated surface.

20 15. A head suspension made by the steps of:  
forming load beam on a metal ribbon;  
detaching the suspension from the ribbon;  
laser cleaning an contaminated surface of the suspension by patterning a laser beam such that a single pulse extends across the entire contaminated surface, and applying one or more pulses of the laser energy sufficient to laser melt a surface  
25 of the contaminated surface.

16. A head suspension, comprising;  
a load beam;  
a suspension connected to the load beam

a head slider connected to the suspension; and  
a lift tab connected to the head slider  
wherein an contaminated surface of the load beam is laser  
cleaned by patterning a laser beam such that a single pulse extends across the entire  
5 contaminated surface.

17. The head suspension of claim 16, wherein the method of  
manufacturing leaves metallic remnants on the suspension.

18. The head suspension of claim 16, wherein the load beam was  
connected to a metal ribbon during forming through a tab that is subsequently  
10 severed during the manufacturing process with a portion of the tab remaining on the  
head suspension after severing, wherein the contaminated surface includes the  
remaining portion of the tab.